RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/050,898A
Source: IFW16
Date Processed by STIC: 4/29/05

ENTERED

IFW16

RAW SEQUENCE LISTING DATE: 04/29/2005
PATENT APPLICATION: **US/10/050,898A** TIME: 10:53:38

Input Set : **A:\sequence listing ascii.txt**
Output Set: **N:\CRF4\04292005\J050898A.raw**

<110> APPLICANT: Renner, Wolfgang A.
Bachmann, Martin
Tissot, Alain
Maurer, Patrick
Lechner, Franziska
Sebbel, Peter
Piossek, Christine
Ortmann, Rainer
Luond, Rainer
Staufenbiel, Matthais
Frey, Peter
<120> TITLE OF INVENTION: Molecular Antigen Array
<130> FILE REFERENCE: 1700.0190005
<140> CURRENT APPLICATION NUMBER: 10/050,898A
<141> CURRENT FILING DATE: 2002-01-18
<150> PRIOR APPLICATION NUMBER: US 60/262,379
<151> PRIOR FILING DATE: 2001-01-19
<150> PRIOR APPLICATION NUMBER: US 60/288,549
<151> PRIOR FILING DATE: 2001-05-04
<150> PRIOR APPLICATION NUMBER: US 60/326,998
<151> PRIOR FILING DATE: 2001-10-05
<150> PRIOR APPLICATION NUMBER: US 60/331,045
<151> PRIOR FILING DATE: 2001-11-07
<160> NUMBER OF SEQ ID NOS: 431
<170> SOFTWARE: PatentIn Ver. 3.2
<210> SEQ ID NO: 1
<211> LENGTH: 41
<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: Primer
<400> SEQUENCE: 1
ggggacgcgt gcagcaggta accaccgtta aagaaggcac c 41
<210> SEQ ID NO: 2
<211> LENGTH: 44
<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: Primer
<400> SEQUENCE: 2
cggtggttac ctgctgcacg cgttgcttaa gcgacatgta gcgg 44
<210> SEQ ID NO: 3
<211> LENGTH: 20

p.6

RAW SEQUENCE LISTING DATE: 04/29/2005
PATENT APPLICATION: US/10/050,898A TIME: 10:53:38

Input Set : A:\sequence listing ascii.txt
Output Set: N:\CRF4\04292005\J050898A.raw

66 <212> TYPE: DNA
67 <213> ORGANISM: Artificial Sequence
69 <220> FEATURE:
70 <223> OTHER INFORMATION: Primer
72 <400> SEQUENCE: 3
73 ccatgaggcc tacgataccc 20
76 <210> SEQ ID NO: 4
77 <211> LENGTH: 25
78 <212> TYPE: DNA
79 <213> ORGANISM: Artificial Sequence
81 <220> FEATURE:
82 <223> OTHER INFORMATION: Primer
84 <400> SEQUENCE: 4
85 ggcactcacg gcgcgcttta caggc 25
88 <210> SEQ ID NO: 5
89 <211> LENGTH: 47
90 <212> TYPE: DNA
91 <213> ORGANISM: Artificial Sequence
93 <220> FEATURE:
94 <223> OTHER INFORMATION: Primer
96 <400> SEQUENCE: 5
97 ccttctttaa cggtggttac ctgctggcaa ccaacgtggt tcatgac 47
100 <210> SEQ ID NO: 6
101 <211> LENGTH: 40
102 <212> TYPE: DNA
103 <213> ORGANISM: Artificial Sequence
105 <220> FEATURE:
106 <223> OTHER INFORMATION: Primer
108 <400> SEQUENCE: 6
109 aagcatgctg cacgcgtgtg cggtggtcgg atcgcccggc 40
112 <210> SEQ ID NO: 7
113 <211> LENGTH: 90
114 <212> TYPE: DNA
115 <213> ORGANISM: Artificial Sequence
117 <220> FEATURE:
118 <223> OTHER INFORMATION: Primer
120 <400> SEQUENCE: 7
121 gggtctagat tcccaaccat tcccttatcc aggctttttg acaacgctat gctccgcgcc 60
122 catcgtctgc accagctggc ctttgacacc 90
125 <210> SEQ ID NO: 8
126 <211> LENGTH: 108
127 <212> TYPE: DNA
128 <213> ORGANISM: Artificial Sequence
130 <220> FEATURE:
131 <223> OTHER INFORMATION: Primer
133 <400> SEQUENCE: 8
134 gggtctagaa ggaggtaaaa aacgatgaaa aagacagcta tcgcgattgc agtggcactg 60
135 gctggtttcg ctaccgtagc gcaggccttc ccaaccattc ccttatcc 108
138 <210> SEQ ID NO: 9

RAW SEQUENCE LISTING DATE: 04/29/2005
PATENT APPLICATION: US/10/050,898A TIME: 10:53:38

Input Set : A:\sequence listing ascii.txt
Output Set: N:\CRF4\04292005\J050898A.raw

<211> LENGTH: 31
<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: Primer
<400> SEQUENCE: 9
cccgaattcc tagaagccac agctgccctc c 31
<210> SEQ ID NO: 10
<211> LENGTH: 24
<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: Primer
<400> SEQUENCE: 10
cctgcggtgg tctgaccgac accc 24
<210> SEQ ID NO: 11
<211> LENGTH: 41
<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: Primer
<400> SEQUENCE: 11
ccgcggaaga gccaccgcaa ccaccgtgtg ccgccaggat g 41
<210> SEQ ID NO: 12
<211> LENGTH: 33
<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: Primer
<400> SEQUENCE: 12
ctatcatcta gaatgaatag aggattcttt aac 33
<210> SEQ ID NO: 13
<211> LENGTH: 15
<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: Modified ribosome binding site
<400> SEQUENCE: 13
aggaggtaaa aaacg 15
<210> SEQ ID NO: 14
<211> LENGTH: 21
<212> TYPE: PRT
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: signal peptide
<400> SEQUENCE: 14
Met Lys Lys Thr Ala Ile Ala Ile Ala Val Ala Leu Ala Gly Phe Ala
1 5 10 15
Thr Val Ala Gln Ala

RAW SEQUENCE LISTING DATE: 04/29/2005
PATENT APPLICATION: US/10/050,898A TIME: 10:53:38

Input Set : A:\sequence listing ascii.txt
Output Set: N:\CRF4\04292005\J050898A.raw

```
211              20
214 <210> SEQ ID NO: 15
215 <211> LENGTH: 46
216 <212> TYPE: PRT
217 <213> ORGANISM: Artificial Sequence
219 <220> FEATURE:
220 <223> OTHER INFORMATION: modified Fos construct
222 <400> SEQUENCE: 15
223 Cys Gly Gly Leu Thr Asp Thr Leu Gln Ala Glu Thr Asp Gln Val Glu
224   1               5                  10                  15
226 Asp Glu Lys Ser Ala Leu Gln Thr Glu Ile Ala Asn Leu Leu Lys Glu
227              20                  25                  30
229 Lys Glu Lys Leu Glu Phe Ile Leu Ala Ala His Gly Gly Cys
230          35                  40                  45
233 <210> SEQ ID NO: 16
234 <211> LENGTH: 6
235 <212> TYPE: PRT
236 <213> ORGANISM: Artificial Sequence
238 <220> FEATURE:
239 <223> OTHER INFORMATION: peptide linker
241 <400> SEQUENCE: 16
242 Ala Ala Ala Ser Gly Gly
243   1               5
246 <210> SEQ ID NO: 17
247 <211> LENGTH: 6
248 <212> TYPE: PRT
249 <213> ORGANISM: Artificial Sequence
251 <220> FEATURE:
252 <223> OTHER INFORMATION: peptide linker
254 <400> SEQUENCE: 17
255 Gly Gly Ser Ala Ala Ala
256   1               5
259 <210> SEQ ID NO: 18
260 <211> LENGTH: 256
261 <212> TYPE: DNA
262 <213> ORGANISM: Artificial Sequence
264 <220> FEATURE:
265 <223> OTHER INFORMATION: Fos fusion construct
267 <400> SEQUENCE: 18
268 gaattcagga ggtaaaaaac gatgaaaaag acagctatcg cgattgcagt ggcactggct 60
269 ggtttcgcta ccgtagcgca ggcctgggtg ggggcggccg cttctggtgg ttgcggtggt 120
270 ctgaccgaca ccctgcaggc ggaaaccgac caggtggaag acgaaaaatc cgcgctgcaa 180
271 accgaaatcg cgaacctgct gaaagaaaaa gaaaagctgg agttcatcct ggcggcacac 240
272 ggtggttgct aagctt          256
275 <210> SEQ ID NO: 19
276 <211> LENGTH: 52
277 <212> TYPE: PRT
278 <213> ORGANISM: Artificial Sequence
280 <220> FEATURE:
```

RAW SEQUENCE LISTING DATE: 04/29/2005
PATENT APPLICATION: US/10/050,898A TIME: 10:53:38

Input Set : A:\sequence listing ascii.txt
Output Set: N:\CRF4\04292005\J050898A.raw

```
281 <223> OTHER INFORMATION: Fos fusion construct
283 <400> SEQUENCE: 19
284 Ala Ala Ala Ser Gly Gly Cys Gly Gly Leu Thr Asp Thr Leu Gln Ala
285                   5                  10                  15
287 Glu Thr Asp Gln Val Glu Asp Glu Lys Ser Ala Leu Gln Thr Glu Ile
288              20                  25                  30
290 Ala Asn Leu Leu Lys Glu Lys Glu Lys Leu Glu Phe Ile Leu Ala Ala
291          35                  40                  45
293 His Gly Gly Cys
294      50
298 <210> SEQ ID NO: 20
299 <211> LENGTH: 261
300 <212> TYPE: DNA
301 <213> ORGANISM: Artificial Sequence
303 <220> FEATURE:
304 <223> OTHER INFORMATION: Fos fusion construct
307 <220> FEATURE:
308 <221> NAME/KEY: CDS
309 <222> LOCATION: (22)..(240)
311 <400> SEQUENCE: 20
312 gaattcagga ggtaaaaaac g atg aaa aag aca gct atc gcg att gca gtg   51
313                        Met Lys Lys Thr Ala Ile Ala Ile Ala Val
314                          1               5                  10
316 gca ctg gct ggt ttc gct acc gta gcg cag gcc tgc ggt ggt ctg acc   99
317 Ala Leu Ala Gly Phe Ala Thr Val Ala Gln Ala Cys Gly Gly Leu Thr
318                  15                  20                  25
320 gac acc ctg cag gcg gaa acc gac cag gtg gaa gac gaa aaa tcc gcg   147
321 Asp Thr Leu Gln Ala Glu Thr Asp Gln Val Glu Asp Glu Lys Ser Ala
322              30                  35                  40
324 ctg caa acc gaa atc gcg aac ctg ctg aaa gaa aaa gaa aag ctg gag   195
325 Leu Gln Thr Glu Ile Ala Asn Leu Leu Lys Glu Lys Glu Lys Leu Glu
326          45                  50                  55
328 ttc atc ctg gcg gca cac ggt ggt tgc ggt ggt tct gcg gcc gct       240
329 Phe Ile Leu Ala Ala His Gly Gly Cys Gly Gly Ser Ala Ala Ala
330      60                  65                  70
332 gggtgtgggg atatcaagct t                                         261
335 <210> SEQ ID NO: 21
336 <211> LENGTH: 73
337 <212> TYPE: PRT
338 <213> ORGANISM: Artificial Sequence
340 <220> FEATURE:
341 <223> OTHER INFORMATION: Fos fusion construct
343 <400> SEQUENCE: 21
344 Met Lys Lys Thr Ala Ile Ala Ile Ala Val Ala Leu Ala Gly Phe Ala
345   1               5                  10                  15
347 Thr Val Ala Gln Ala Cys Gly Gly Leu Thr Asp Thr Leu Gln Ala Glu
348              20                  25                  30
350 Thr Asp Gln Val Glu Asp Glu Lys Ser Ala Leu Gln Thr Glu Ile Ala
351          35                  40                  45
```

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 04/29/2005
PATENT APPLICATION: **US/10/050,898A** TIME: 10:53:39

Input Set : **A:\sequence listing ascii.txt**
Output Set: **N:\CRF4\04292005\J050898A.raw**

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:111; Xaa Pos. 28
Seq#:283; N Pos. 9872
Seq#:421; Xaa Pos. 31
Seq#:422; Xaa Pos. 1
Seq#:423; Xaa Pos. 19

Invalid <213> Response:
Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:352,353,354,355,358,359,360,363,364,365,366,367,368,369,370,371,372,373
Seq#:374,375,376,377,378,379,380,381,382,383,384,385,386,387,388,389,390,391
Seq#:392,393,394,395,396,397,398,399,400,405,406,407,408,409,410,411,412,413
Seq#:414,415,416,417,418,419,420,421,422,423,424,425,426,427,428,431

VERIFICATION SUMMARY DATE: 04/29/2005
PATENT APPLICATION: **US/10/050,898A** TIME: 10:53:39

Input Set : **A:\sequence listing ascii.txt**
Output Set: **N:\CRF4\04292005\J050898A.raw**

L:2386 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:111 after pos.:16
L:5207 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (177) SEQUENCE:
L:9590 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:283 after pos.:9840
L:13290 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:421 after pos.:16
L:13310 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:422 after pos.:0
L:13338 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:423 after pos.:16